

isc Silicon NPN Darlington Power Transistor
2SD1673
DESCRIPTION

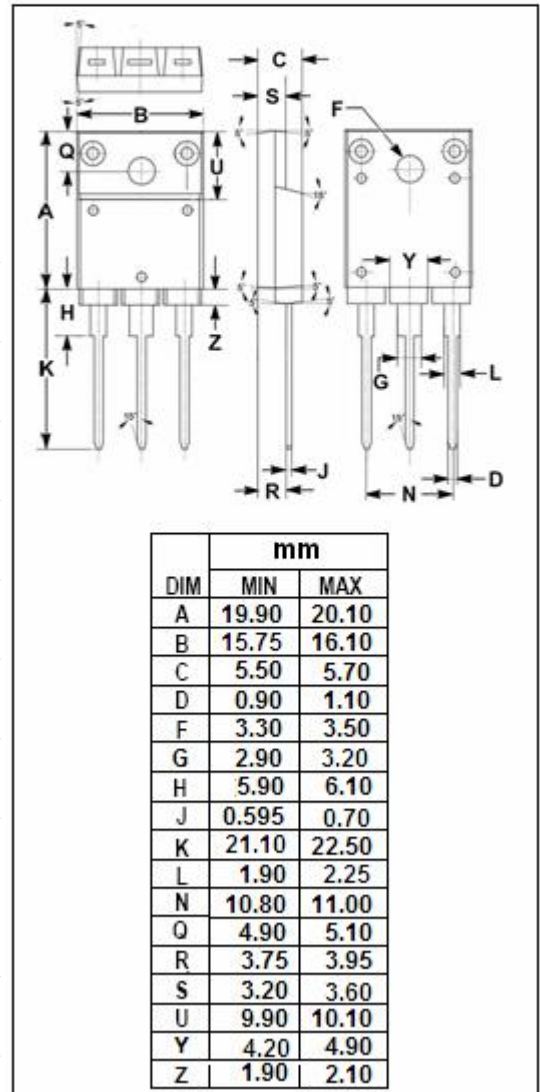
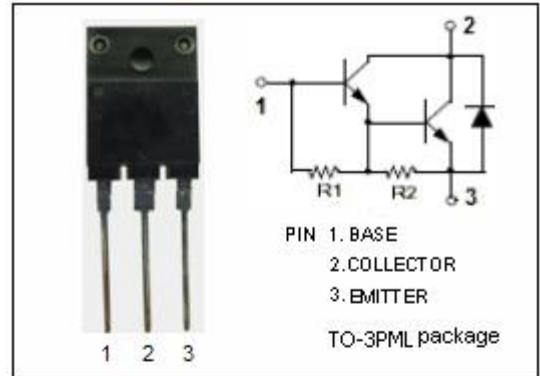
- Collector-Emitter Breakdown Voltage-
: $V_{(BR)CEO} = 400V(\text{Min})$
- High DC Current Gain-
: $h_{FE} = 1000(\text{Min.}) @ I_C = 7A$
- Low Collector Saturation Voltage-
: $V_{CE(sat)} = 1.5V(\text{Max}) @ I_C = 5A$
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- For low speed high current switching industrial use.

ABSOLUTE MAXIMUM RATINGS($T_a=25^\circ\text{C}$)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	500	V
V_{CEO}	Collector-Emitter Voltage	400	V
V_{EBO}	Emitter-Base Voltage	8	V
I_C	Collector Current-Continuous	10	A
I_{CM}	Collector Current-Peak	15	A
I_B	Base Current-Continuous	1	A
P_C	Collector Power Dissipation @ $T_a=25^\circ\text{C}$	3.5	W
	Collector Power Dissipation @ $T_c=25^\circ\text{C}$	70	
T_J	Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature	-55~150	$^\circ\text{C}$



isc Silicon NPN Darlington Power Transistor**2SD1673****ELECTRICAL CHARACTERISTICS**T_j=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{CE(sat)-1}	Collector-Emitter Saturation Voltage	I _C = 5A; I _B = 10mA			1.5	V
V _{CE(sat)-2}	Collector-Emitter Saturation Voltage	I _C = 7A; I _B = 100mA			1.8	V
V _{BE(sat)-1}	Base-Emitter Saturation Voltage	I _C = 5A; I _B = 10mA			2.2	V
V _{BE(sat)-2}	Base-Emitter Saturation Voltage	I _C = 7A; I _B = 100mA			2.5	V
I _{CBO}	Collector Cutoff Current	V _{CB} = 500V ; I _E = 0			100	μ A
I _{EBO}	Emitter Cutoff Current	V _{EB} = 5V; I _C = 0			20	mA
h _{FE-1}	DC Current Gain	I _C = 2A; V _{CE} = 2V	600			
h _{FE-2}	DC Current Gain	I _C = 7A; V _{CE} = 2V	1000		20000	

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